Brock (H. W.)

REPORT OF CASES

OF

STRANGULATED INGUINAL HERNIA.

BY

HUGH W. BROCK, M. D.,

MORGANTOWN, WEST VIRGINIA.

[*REPRINTED FROM THE N. Y. MEDICAL JOURNAL, JANUARY*, 1873.]

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REPORT OF CASES OF STRANGULATED INGUINAL HERNIA.[1]

Case I.—John Snowden, farmer, aged forty, had been the subject of indirect inguinal hernia for ten years, for which he had worn a truss; but on the evening of 14th January, 1858, having removed his truss, and becoming enraged at seeing a number of cattle in his door-yard, ran violently after them, striking, while at full speed, his right groin immediately over the seat of his hernia, which was by this time largely protruded, against the top of an upright post. He fell to the ground in syncope, from which he soon rallied, but reaction was accompanied by intense pain and tenderness in the hernial protrusion, and extending also throughout the abdomen. I saw him about six hours after the injury. Pulse full and frequent; skin hot and dry; abdomen, tympanitic, painful, and tender to the touch; hernia still unreduced, and about the size of a large hen's-egg. Patient being of plethoric habit, I took a full bleeding from the arm, following it with the administration of opiates in large and repeated doses. I reduced

[1] Read before the Medical Society of the State of West Virginia, at its annual meeting, in the city of Wheeling, in June, 1872.

the hernia with but little difficulty after the venesection; remained with patient till morning, continuing the opiates and applying fomentations of hop-water, slightly tepid, to the abdomen.

8 A. M.—Pulse increasing in frequency—135 per minute; tympanites, abdominal pain and tenderness also increasing. Direct treatment to be continued, promising to return in the evening.

8 P. M.—Accompanied by Dr. Joseph A. McLane, visit house of patient, who had died two hours previously.

Autopsy—performed four hours after death—revealed extensive peritonitis, but no gangrene. Almost entire extent of visceral and parietal surfaces of peritonæum, particularly the former, highly vascular, with numerous patches of sero-purulent exudation.

CASE II.—John Hall, farmer, aged twenty-seven, was discovered to be the subject of an oblique inguinal hernia on the right side, when about twelve years old, for which a truss was applied and subsequently worn.

In the afternoon of August 26, 1869, while engaged in "carrying up the corner" (a phrase which most of you will understand) of a log building for a neighbor, his truss becoming displaced, his hernia came down, gradually increasing in size, and becoming so painful that he was obliged to come down from the building, and stepping to one side he attempted the reduction of his hernia. Failing in effecting this, both by his own efforts and those of his friends, his father placed him upon a horse and brought him to his home, about two miles distant.

I was sent for and saw the patient about 6 P. M. I found the right groin and scrotum occupied with a hernial protrusion nearly the size of a child's head, firm and elastic to the touch.

Pulse but little increased in frequency; slight nausea, and occasional vomiting. For nearly three hours, at intervals, patient under the influence of ether, I employed taxis, aided by position and the usual auxiliaries, but failed in reducing the hernia to the slightest extent. I then expressed to the patient and friends my conviction that an operation would be necessary, stating that I would return home, get the necessary in-

struments and appliances ready, and would return by day-dawn on the following morning, when, if taxis should still fail, I would operate, the part in the mean time to be kept bathed with cloths dipped in cold water.

On the following morning, accompanied by Dr. Joseph A. McLane, who was then my partner, saw the patient at six o'clock. No material charge, either in hernial swelling or patient's general condition. Both Dr. McLane and myself repeated taxis, but with no effect.

At 8 A. M., assisted by Dr. McLane, I operated in the usual manner, opening the sac, which proved to be the tunica vaginalis, and from which escaped a considerable quantity of serum; divided the stricture at the internal ring, and reduced the hernial mass, which was composed exclusively of intestine.

The wound was brought together by sutures and adhesive straps, spica-bandage applied, and patient placed with hips elevated in bed. I remained with patient during the day, Dr. McLane returning home. About four hours subsequent to the operation, strong reaction came on, pulse became full and frequent, face flushed, head hot and painful, and abdomen tympanitic. I opened a vein in the arm, and abstracted about twenty ounces of blood. As the blood flowed the pulse softened, flush upon the face disappeared, profuse perspiration broke out, and general relaxation ensued. The patient, by this time, expressing a desire to evacuate his bowels, and there being no bed-pan convenient, I placed a large grain-shovel beneath the nates, which was soon filled with a copious discharge of fæces, mixed with a large amount of undigested corn and beans. Tumefaction of the abdomen and tympanites at once subsided, and patient recovered without a subsequent unfavorable symptom—union of the wound being complete in about ten days—soon after which he came to town, a distance of six miles, on horseback to visit me, and to have a new truss fitted.

Some months subsequent to this, his father having been attacked with typhoid fever, he made frequent visits to see me, in relation to his father's case and after one of these visits I was sent for under the following circumstances: On the night of January 26, 1870, at 11.30 o'clock, I was called upon by a messenger, stating that Mr. Hall, after returning from town in the

afternoon, started out to hunt for a squirrel for his father, who was then convalescent, and while moving around on a steep hill-side, viewing a squirrel in a tree above him, stepped upon a round stick of wood which, rolling beneath his feet, gave him such a wrench, in falling, that his truss was displaced and his hernia protruded. Having failed to reduce it on the spot, and also after returning to the house, a messenger was dispatched for me, but was recalled soon after mounting his horse, the patient having succeeded in reducing his hernia. When, however, he came to examine the scrotum, he discovered that the testis of that side had also disappeared with the return of the rupture. He remained rather comfortable for an hour or more, when he began to experience pains in the abdomen, which gradually increased, so that I was sent for as above stated.

I saw the patient about 1 o'clock on the morning of January 27th; found him in intense anguish, exclaiming, "What shall I do? I cannot stand it! I must die!" and like expressions.

On examination I found no hernia. Testis of right side was absent from the scrotum, and I could detect nowhere along the course of the inguinal canal, nor external to it, any body resembling a testis. Pulse 50 per minute; skin rather cooler than normal; pains extended throughout the abdomen, but were rather greatest in right iliac region. Percussion revealed also more flatness in this locality than elsewhere.

I was, of course, puzzled. I was at a loss to know whether the intense pain, which could be alleviated only by constant anæsthesia, induced by ether or chloroform, was neuralgic in character, resulting from the abnormal position of the testis, or whether there was internal strangulation.

I got the patient upon his feet, excited cough and emesis, with the hope of reproducing the hernia and bringing with it the testis. All means, however, which I could devise for this purpose failed.

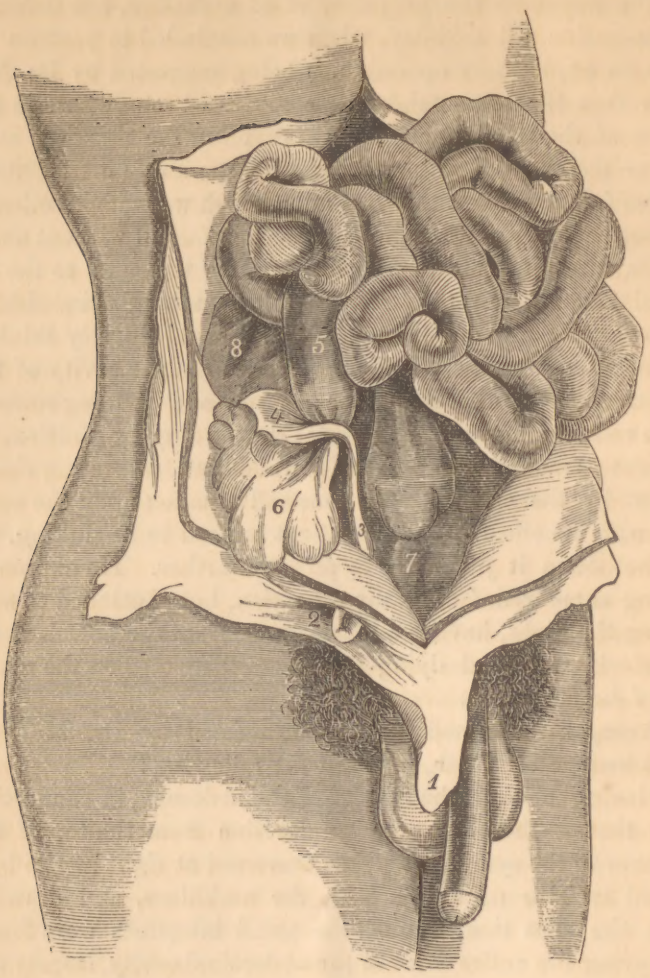
At 3 A. M. I sent for Dr. McLane in consultation, who, upon his arrival and examination of the case, was equally puzzled with myself. Opiates in full doses were administered, but nothing short of full anæsthesia proved adequate to the comfort of our patient.

We discussed the propriety of an operation, but deferred its execution till mid-day, when we concluded to perform at least an exploratory operation, it being suggested by Dr. McLane that the testis might be compressed somewhere in the course of the inguinal canal. On dividing the tissues so as to expose the external ring, we found the spermatic cord doubled on itself, just without the ring, upon which we made traction in the hope of withdrawing the displaced organ, but without avail.

On introducing the index-finger along the canal to the internal ring, I found it traversed by fibrinous bands diminishing somewhat the size of the ring, so that I could scarcely think it possible for the testis to have receded within the cavity of the abdomen. On introducing the bistoury and dividing some of these constricting bands, and relaxing the ring by position, an immense amount of serous fluid welled out, saturating cloths almost by the armful. We renewed traction upon the cord, but with no effect. As our patient seemed to be sinking, we did not deem it justifiable to proceed further. He expressed feeling some relief after the operation, but continued to sink during the night, having a hæmorrhage from the bowels about 4 o'clock, A. M., and dying two hours thereafter on the morning of January 28th.

Autopsy performed by myself, assisted by Dr. McLane, eight hours after death, revealed the following:

Having opened the cavity of the abdomen, in connection with that of the thorax, by an incision from the top of the sternum to the symphysis pubis, traversed at right angles by a second incision on a line with the umbilicus, and drawing aside the flaps thus formed, the small intestines were found occupying the entire front of the abdominal cavity, largely distended and gangrenous. Indeed, there was no portion of intestine thus brought into view that was not darker in color than the liver. On more minute inspection, we found the spermatic cord lying directly across the ilium at a point between three and four inches from its junction with the cæcum, the testicle, suspended by its cord, lying above and behind the intestine. The constriction of the gut, thus effected by the cord, was so complete that below this point both ilium and cæcum, as also the colon, were empty and normal in color;



EXPLANATION OF THE PLATE.

1. Cavity of tunica vaginalis laid open, showing the absence of the testis and spermatic cord.
2. Spermatic cord doubled on itself, just without the external abdominal ring.
3. The cord within the abdomen leading to—
4. The testis lying above and behind the ilium, near its junction with the cæcum; the cord thus traversing the bowel and forming the constricting cause.
5. The ilium, distended and gangrenous above the stricture, which is here nearly vertical, inclining toward the right, was in the original case more nearly transverse, inclining, in its course to the jejunum, to the left.
6. The cæcum, empty, lying out on the flap; the appendix vermiformis in this subject being absent.
7. The cavity of the pelvis, from which the viscera are drawn aside, to exhibit the course of the cord.
8. Upper portion of right iliac and lumbar regions occupied by empty colon—not visible in the plate.

while above, for the distance of four feet or more, the ilium was deep black from its gangrenous condition and largely distended with fecal matter and gas—the black color being more intense near the site of stricture, and gradually fading toward the jejunum.

Through the kindness of my distinguished friend Prof. William H. Pancoast, of Jefferson Medical College, who, during my recent visit to Philadelphia, generously furnished me with material for the dissection, I am enabled, by the hand of an artist, Mr. Crawford, to present herewith, as nearly as possible, a fac-simile of the autopsical appearance in this case.

The plate is engraved from a drawing taken by the artist from a subject as prepared by myself in one of the anatomical rooms of Jefferson College, representing as faithfully as I could the *post-mortem* appearances as presented to Dr. McLane and myself in our examination made upon the body of our deceased patient.

The representation is, in all its essential features, accurate, varying only in some minor points, owing to slight anatomical differences in the subjects.

The artist has also failed to represent the intestine in its deeply-gangrenous condition, being unable, as he stated, to give it the requisite shading and still preserve distinctly the outlines of its convolutions, lying, as they did, in such immediate contact.

Case III.—Mrs. Keener, aged sixty-five years, the mother of a large family, had been afflicted with oblique inguinal hernia on left side for many years, for which a truss had been worn.

September 5, 1869.—I was called upon to reduce her hernia, which had been out for forty-eight hours.

I found her with evident symptoms of strangulation—nausea and vomiting, abdominal pains and constipation. After failing in effecting reduction by taxis, I operated, patient under ether, assisted by Drs. Joseph A. McLane, L. S. Brock, and W. L. McLane, opening the sac and dividing the stricture at the internal ring; reduced the protruded intestine, which was of a deep-livid color, but became brighter after division of the stricture and exposure to the air. Patient did well till

third day, when high fever occurred; pulse 130 per minute; skin hot and dry, and tongue coated.

Free venesection diminished the pulse to 90 per minute, and other febrile symptoms in like manner. The blood exhibited a decided buffy coat.

Three days after this time an abscess opened into the wound left by the operation, discharging matter of a very offensive odor. Patient after this made a good recovery, and is now in comfortable health, though still obliged to wear a truss.

Case IV.—January 1, 1870, received a telegram from Drs. Kramer and Berch, requesting my presence at Greensboro, Pa., to "operate for strangulated hernia."

On my arrival I found the patient, Willie McCoy, aged eight years, with a hernial protrusion of considerable size occupying the left inguinal region, and extending into the scrotum.

As informed by patient's friends and attending surgeons, the hernia had remained protruded for about ten days, and there had been stercoraceous vomiting for nearly a week past. Patient's general appearance was emaciated and feeble; pulse small and frequent, 120 per minute; abdomen largely distended. Near the middle of the scrotum there was decided discoloration, from which, in connection with the general symptoms, I feared, in common with the attending surgeons, that a fecal abscess was in process of formation. From this suspicion, and the fact that several surgeons had used taxis, I did not feel justified in repeating any manipulation.

The case seemed unpromising, but on the morning of January 2d, assisted by Drs. Kramer, Berch, and W. L. McLane, patient under ether, I operated, opening the sac, dividing the stricture at the internal ring, and reducing the protruded intestine, which was of a dark-brown color, but not gangrenous.

The discoloration mentioned as appearing in the scrotum we found due to the presence of a mass of omentum which was found not only adherent to the hernial sac (the hernia was non-congenital), but seemed incorporated with the tissues outside, and was doubtless of long standing. I did not excise this, as usually recommended, but contented myself with the division of the stricture and reduction of the protruded bowel.

I did not see the patient subsequently, but was informed he made a rapid recovery. A few weeks since I learned from the father that, with but one exception, there had been no return of hernia. On that occasion it was the result of jumping from a height while playing with other boys—no truss having been applied since the operation up to this time. The hernia was reduced and truss applied, since which there has been no return or other unpleasant symptom in the case.

Case V.—This is the last with which I shall tax your time on the present occasion. Being one, however, possessed of interest both in its pathological and medico-legal aspects, furnishing, as it did, my first and only experience, thus far, in litigation under a charge of malpractice, you will, I trust, pardon the detail with which I shall give it.

The clinical history of the case as given in my own deposition, and recorded in the legal proceedings in the cause, corroborated as it was essentially by the patient's own testimony and that of Dr. McLane, who was associated with me in the treatment, and upon which the testimony of the medical experts in the trial was based, is as follows:

"On the 27th of December, 1866, my partner (Dr. McLane) and myself were called upon to visit Peter A. Layton, aged seventy years, who was then at the house of his son in Morgantown, and from whom (the patient) we received the following account of his case: 'For some years,' he said, 'he had had trouble occasionally in his right groin; that, on leaving his home in Cassville, seven miles distant, to make his (then) present visit, while mounting horse, he felt something give way in this region, which continued to give him uneasiness, and which was still more greatly increased by a sudden spring made by his horse when about midway between Cassville and Morgantown. On examination, we found in the right inguinal region an enlargement something near the size of a hen's-egg, which we diagnosticated as a hernial protrusion, and which, by taxis, we, as we believed, reduced. There remained, however, at or near the site of the external abdominal ring a small lump about the size of a small almond, which we believed to be either an enlarged gland or, possibly, a small portion of omentum unreduced. In the absence, however, of

decided symptoms of strangulation, we did not deem a surgical operation advisable, especially after finding his bowels to respond promptly to a mild cathartic. After the operation of the cathartic he was comparatively comfortable, and, though still complaining slightly of tenderness on pressure over the lump, there were no evident symptoms of strangulation nor was there any constitutional disturbance more than could be ascribed to an ordinary cold, under which he was then laboring. We advised him to remain in town, keeping quiet, for a few days, where we could watch his case more closely and meet any indication that might arise in its progress. He decided, however, to go home, and we applied a truss to prevent, on his way, a return of the hernial protrusion we had reduced.

"On the 4th of January following, I was sent for to visit him at his home. There were, at this time, decided febrile movement, bowels constipated, pulse 100 per minute, skin rather hot and dry, tongue coated, some thirst, and impairment of appetite. On examination, I found a circumscribed phlegmonous swelling, occupying adjoining portions of the right inguinal and hypogastric regions, circular or rather oblong in shape, about four to four and a half inches in its longest, and three and a half to four inches in its shortest diameter, hard, tender, hot, and painful, in short, presenting all the characteristics of an abscess in progress.

"Considering the location of the swelling, in connection with the history of the case, I expressed to the patient and friends the fear that the bowel might be involved in the abscess, and that his case was by no means free from danger. I directed the application of warm emollient poultices to mitigate inflammatory action and hasten suppuration, and ventured to give a mild aperient (the citrate of magnesia), not for the purpose of exciting active peristaltic action, but to invite a flow of serum into the bowels so as to soften their contents and allow of their easy passage along the intestinal canal. This acted kindly and effectively. After this I expressed to the patient and friends the hope and belief that, inasmuch as the action of the medicine had demonstrated the fact that the continuity of the intestinal tract was unbroken, the bowel was not probably involved in the abscess. Anodynes were adminis-

tered, and poultices continued, under which the heat, redness, and hardness of the swelling diminished, the bowels, meantime, responding to the influence of aperients whenever administered. By the 10th of the month, six days after my first visit, there was very decided fluctuation in the swelling, and, on light percussion over the softest central point, slight resonance.

"I opened the abscess at the most yielding and prominent point, requiring for the purpose an incision but little beyond the depth of the skin. This was followed by a copious escape of pus, fecal matter, and gas, of a very offensive odor. I then had no doubt that the bowel communicated with the cavity of the abscess, and so expressed myself to the patient and friends. On the application of paper soaked in a solution of acetate of lead, and subsequently dried, to the gas during its escape from the opening, it was instantly tarnished black, showing the presence of sulphuretted hydrogen gas; and the diagnosis of intestinal communication was rendered conclusive by the escape, after the lapse of some days, from the opening, of an intestinal worm.

"On the 11th of the month, the day after the abscess was opened, Dr. McLane visited the case with me, between whom and myself there was full and complete concurrence as to the pathology and treatment of the case throughout. The poultices were continued until after the subsidence of all inflammatory action, after which simply retentive dressings were kept applied, the patient's general condition meanwhile improving, the discharge gradually diminishing in quantity, and the aperture decreasing in size until, after the expiration of a few weeks, it was entirely healed. The patient, so far as we know, has never had any return of his hernia, no intestinal obstruction or other serious inconvenience resulting from the accident."

After waiting for nearly five years for compensation for our services, and receiving information that through the advice of a meddlesome neighbor, who was exceedingly "wise in his own conceit," our quondam friend and patient would not only resist payment, but was seriously meditating an offensive movement in law, we decided at once to take the initiative. Still desirous, however, on account of old friendship, to give no un-

necessary trouble, as also on account of our aversion to "the law's delay" attending a suit at court, we reduced the bill to bring it within a magistrate's jurisdiction (a sum not exceeding $100), and instituted suit accordingly before a justice for said amount due us.

On the day appointed for trial we were confronted by the adviser of the defendant, who appeared as his agent and entered a plea of "Malltreatment, damage $500," demanding, under the statute, a jury and a continuance of the cause. Six men, the number required by law, were selected, and the time for trial agreed upon.

On the day fixed for the hearing of the cause before the jury, February 20, 1872, each of the parties to the suit appeared, ready for trial. We, as the plaintiffs, agreeing to waive all questions as to the admissibility of the defendant's claim for damages, expressed our willingness to proceed to trial on the merits of the cause as presented. We demanded, however, that the defendant, in filing his answer, should be more explicit in its wording. His attorney whom he had employed for the occasion failing to be present, he called upon his agent, adviser, and swift witness, to write the answer, which reads thus:

"*January* 8 1867

"*Drs McLane & Brock Dr To Peter A Layton*

"For Mal Treatment" [we had taught him to spell *mal* at our previous meeting] "in Medical practice for euting my bowels thare by causing me to be confind a long time to bed and hous and causing me grate sufering and imparing my heath in jeneral

"I for the abov treatement clame a damage of Five hundred dollars."

In proceeding to trial, we, as plaintiffs, introduced testimony, first, simply to prove that the services were rendered, their nature and value.

The defence, in endeavoring to establish his claim for damages, introduced himself and several other witnesses, by most of whom we proved that he experienced relief after the operation, that he made a good recovery, and that his health was as good as, if not better than, before.

His own account of the case (under oath) fully harmonized with mine, differing only as to the depth of the incision, and the question as to the cutting of the bowel.

None of his witnesses, excepting himself and his agent and adviser in the suit, ventured an opinion on this point. The latter knew the bowel was cut because he "saw it done;" he "knew it because he saw the *manure* escape."

I will not tax your time in narrating the details of our cross-examination of this witness. Suffice it to say that, after eliciting his declaration before the magistrate's court that he professed to be familiar with the subject of hernia, understood its nature, the distinction between hernia and abscess—being a saddler by trade, among other things he made trusses and applied them—he afterward had occasion to conclude, before proceeding far in his endeavors to answer questions based upon his assumed knowledge, that, according to his own statement, he didn't "know any thing very certainly."

In our rebutting testimony, disproving the allegation as to the wounding of the bowel and the consequent claim for damages, I gave, upon the witness-stand, a full clinical account of the case, then proceeded to demonstrate, by diagrams upon the black-board, the anatomy of hernia in its different varieties, and explained, in detail, the peculiarity of the case in question; that, in our efforts in reducing Mr. Layton's hernia, there may have remained a small segment of bowel unreduced, or, which was not improbable, that a segment of bowel (not its entire calibre) had, subsequently to this, protruded and become strangulated in the internal ring; that the consequent inflammatory action set up in the surrounding parts resulting in the effusion of plasma united the adjacent serous surfaces of the viscus and abdominal parietes; meanwhile the strangulated segment of gut sloughing off, allowed the intestinal contents to escape, thus forming an abscess. The abscess being opened in due time, as was right and proper, the "manure" escaped. Not, however, in consequence of any wound of the bowel having been inflicted in the operation, but in consequence of a communication having been established between the cavity of the bowel and that of the abscess in the progress of diseased action, regulated by the conservative forces of Nature, as I had just described.

In addition to the blackboard illustrations, by means of tissue-paper, suitably prepared, I represented an intestine strangulated at the internal ring, its surrounding serous sur-

face, as a result of inflammatory action, united by the interposition of plasma to the adjacent parietes of the abdomen, thus closing communication between the point of strangulation and the cavity of peritonæum. The strangulated segment of intestine sloughing off allowed the intestinal contents, which in the representation were of sawdust, to escape through the opening made by the sloughing process. An abscess being thus formed, was opened externally by the knife, when the contents of both abscess and intestine escaped through the incision, no wound of the bowel having been inflicted in the operation.

I furthermore explained to the jury how it might have happened, if I had omitted to give exit to the pus and fecal matter by operative procedure, that these would have burrowed in the surrounding parts, giving rise to extensive sloughing, and perhaps escaping into the cavity of the abdomen would, beyond question, in that event have produced death.

This theory of the case, with the accuracy of the demonstrations, was fully confirmed by the testimony of Drs. Joseph A. McLane, F. H. Patton, and L. F. Campbell, who were present as witnesses, all graduates and practitioners of large experience, the opinions of Drs. Patton and Campbell being based upon all the evidence adduced in the trial, that of Dr. McLane being, in addition, based upon his personal knowledge of the case during its progress.

We then introduced the deposition of Prof. Pancoast, Sr., of Philadelphia, who, according to the testimony of the medical gentlemen named above, was unsurpassed at the present day as an operating surgeon; according to their information, no higher authority was recognized by medical men generally throughout the United States than the opinions of Prof. Pancoast upon questions relating to surgical anatomy or the principles of surgical pathology.

Dr. Pancoast, in his deposition taken in Philadelphia, in response to interrogatories directed to the point of proving him an expert, states as follows:

"I have been a public teacher of anatomy and surgery since 1830. I now hold the chair or professorship of General, Special, and Surgical Anatomy in Jefferson Medical College of this city, and have so held the same since 1839–'40. I am the author of 'Pancoast's Surgery,' 'Pancoast's Wistar's

Anatomy,' and 'Pancoast's Quain,' all of which are used by the medical profession, and largely as text-books in the colleges of the several States."

The clinical history of the case, as read in your hearing, being furnished Dr. Pancoast for his examination upon it, the subjoined interrogatories, as propounded by me, with his answers annexed, follow in the order here given:

Interrogatory 5.—Judging from the history of the case above given, do you or not consider the opinions stated to have been expressed to the patient and friends, in the light of the facts as presenting themselves at the time those opinions were given, as correct, or such as were justified by the principles of surgical pathology as relating to the parts involved?"

Answer.—"I regard them as entirely correct, perfectly reconcilable, and justified by every principle of sound surgery."

Interrogatory 6.—"Was, or was not, the treatment in the case, as described, such as is regarded justifiable and proper by the authorities upon the subject, and in accordance with your own experience in such cases?"

Answer.—"Most certainly; I am firmly of the opinion that the treatment was not only correct and proper, but the only one suited to the case."

Interrogatory 7.—"Is it your opinion that the escape of fecal matter, after the opening of the abscess in this case, was the result of a wound of the bowel; or, that a portion of the bowel, having become strangulated in or near the internal abdominal ring, had sloughed off, thus opening a communication with the cavity of the bowel and that of the abscess, and that the abscess being opened the contents of the bowel escaped with the pus, or what is your opinion touching this point?"

Answer.—"I am perfectly clear in my opinion, drawn from the above statement, that the bowel could not have been opened by the knife. The bowel must have been opened by natural sloughing at the ring, and let the contents of the bowel down to form an abscess."

Interrogatory 8.—"Do you or do you not, then, consider it was right to open the abscess at the time and in the manner it was done?"

Answer.—"It was right and proper, and absolutely necessary to do so."

Interrogatory 9.—"What might have happened had not an external opening been made at the proper time?"

Answer.—"Extensive sloughing, and, possibly, death."

Interrogatory 10.—"Suppose that in operating in this, or any similar case, I had carried my incision too deeply, going beyond the limits of the abscess, and had inflicted a wound of the bowel, what would, in all probability, have been the result?"

Answer.—"No disadvantage whatever; for when a bowel sloughs we have sometimes to make a free opening in it, purposely, to let its contents escape and prevent them getting into the belly, which would be fatal."

Interrogatory 11.—"Do you or do you not consider the patient in this case to have sustained any damage by the treatment adopted?"

Answer.—"Not at all. I consider the treatment most judicious and skilful, and that the patient is indebted to it for his life."

Interrogatory 12.—"Would you regard the party who had been the subject of an inguinal hernia, so far as the dangers to life, health, and comfort, are concerned, in a better or worse condition after such a result as has obtained in this case, than he had been previously?"

Answer.—"From several other cases of the sort which I have seen, I should think the patient would get on as well for the future as if nothing had ever happened to him; that the hernia will be cured, and the patient saved the risks thereof.

(Signed) "JOSEPH PANCOAST.

"JOSEPH FRANKISH,

"*Commissioner for West Virginia in Pennsylvania.*"

The case, on our side, was closed by exhibiting the works of Prof. Pancoast, and reading to the jury from other works the reports of some authenticated similar cases, in which no operation was performed, and which proved fatal.

Our opponent was now at liberty to introduce any rebutting testimony to ours that he might desire. He introduced none, except his own person for the inspection of the jury.

On exposure of the parts faint traces of cicatrix were visible, but no hernia, no artificial anus, or other deformity of any kind.

He had had summoned for the occasion as experts, as we suppose, a homœopathic practitioner and a regular (claiming to be), who were present as listeners during the entire trial, but neither of whom was brought upon the witness-stand.

It may be a matter of surprise, though illustrating the fact that law has its uncertainties as well as other things, when told that the case being submitted upon the evidence, as detailed above, the jury failed to agree, differing upon the point as to whether or not the intestine had been wounded in the operation.

It may seem more surprising when told that, though the minds of all the jury, with one exception (possibly one other), were clear in the opinion that no wound of the gut had been made by the knife, the doubt existed in the mind of one who is a man of mature experience and close observation in many things; who had been an acting justice of the peace for many years, had been himself a student of medicine (botanic school, I believe), and who frequently prescribes and attends cases of sickness.

It is, perhaps, needless to add that the plaintiffs, viewing the case from their stand-point, perceived in the result the force of the sentiment expressed in Pope's "Essay on Criticism:"

> "A little learning is a dangerous thing;
> Drink deep, or taste not the Pierian spring;
> For shallow draughts intoxicate the brain,
> And drinking deeply sobers us again."

The jury failing to agree, the law presented two alternatives: the one to select a new jury and re-try the case; the other, by consent of parties, to submit it to the magistrate, who had presided in the trial, for his decision.

The latter being agreed upon, the magistrate entered judgment in our favor for full amount of claim with interest, barring the sum of four dollars (items for prior attendance), upon which the defendant pleaded the statute of "limitations."

In addition to the lessons taught by the proceedings in connection with this last case, there are several points, as deduced from my experience with hernia and suggested in the course of my investigations upon the subject, to which I

might direct attention, but I will conclude with the mere mention of a few of these points:

1. The value of venesection as a therapeutic agent in actual or threatened peritonitis supervening upon surgical operation for the relief of strangulation.

2. The posture of the patient most favorable to the reduction of an inguinal hernia by taxis, either as an original measure or after the protrusion has been exposed by the knife.

Every surgeon must have observed in his dissections upon the cadaver, as also in his operations upon the living subject, the effect of position of the lower limbs upon relaxation and contraction of the abdominal rings; that elevation of the limb does not give full patency to the external ring of the corresponding side unless it be accompanied with inward rotation. And that, although the limb remain, to a certain degree, extended, if rotated inwardly, full relaxation and patency of the ring upon the corresponding side follow.

While most authors insist especially on elevation of the limb, but few direct attention to the importance of inward rotation.

3. The practicability of reducing, in some instances, strangulated hernia after its exposure by the knife without further use of the instrument. Although, in my experience, I have always found it necessary to divide the stricture, I am satisfied cases do occur where it may be avoided. Taxis, after exposure of the protruded viscus or viscera, being susceptible of more direct application than it can be through the skin and other coverings of the hernia, must, of course, be more efficient.

Where this procedure is practicable, it is evident the operation is less complicated and attended with diminished risk. This is a point I have seen nowhere noticed except in Prof. F. H. Hamilton's excellent "Report on Abdominal Hernia," in "Bellevue and Charity Hospital Reports, 1870."

4, and lastly. The unique character of Case II. of this report.

The literature of the subject, so far as I have had access to it, furnishes nothing upon record like it. And yet, as is evidenced by this case, the accident occurring in its history is one of those to which congenital hernia may be liable.

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